



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Mika JOKINEN et al.

Serial Number: 09/913,643

Group Art Unit: 1618

Filed: October 19, 2001

Examiner: Fubara, Blessing M.

For: BIODEGRADABLE CERAMIC FIBRES FROM SILICA SOLS

SUPPLEMENTAL DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Mika Jokinen, declare and state:

1. I executed a Declaration Under 37 C.F.R. § 1.132 for this application on June 12, 2007 ("the Jokinen Declaration"). A copy of the Jokinen Declaration is attached as Exhibit 1.

2. Paragraph No. 13 of the Jokinen Declaration correctly describes German Patent Publication 196 09 551 ("German '551") as disclosing a fiber whose fastest dissolution time is 50 days. See page 4, lines 24-55 of the English translation of German '551 ("A fibre according to the invention having a diameter of 10 μ m is thus completely degraded within 50-500 days".)

3. German '551 also states its fibres have degradation rates between 10 and 100 nm fibre radius per day, with the degradation rate correlating with the amount of silanol groups of the fibre

(English translation, page 4, lines 21-24). The German '551 fibers may have round, oval or bone-shaped cross-sections (English translation, page 14-15), and a diameter of between 5 and 50 μm (English translation, page 4, lines 15-17).

4. German '551 does not disclose a degradation rate or range for fibres having a 5 micron diameter. It is possible to calculate a maximum degradation rate of 25 days, but only if one assumes the fibre (1) has a round cross-section, (2) a 5 micron diameter, and (3) the maximum degradation rate of 100 nm fibre radius per day.

5. In my opinion, one of ordinary skill in the art would consider the combination of these assumptions to be speculative, and would not consider German '551 to disclose silica fibres having a 25 day minimum dissolution time. Instead, one of ordinary skill in the art would view its mention of a 5 micron diameter fibre in the context of the entire German '551 disclosure. The same paragraph which discloses a fibre diameter range teaches the fibre may have a non-circular cross-section, and possess a cross-sectional surface area range of 100 to 500 μm^2 . However, a fiber having a circular cross section and a 5 to 50 micron diameter range will have a circular cross section of 19.6 μm^2 to 1,962 μm^2 . This disparity between the cross-sectional area range of the German '551 fiber and the cross-sectional area of a corresponding circular fiber is also present in the German '551 example, which is said to

have produced fibers having a diameter of from 5 to 30 microns and a cross-sectional surface area between 100 and 400 μm^2 (English translation, page 9, lines 16-18).

6. German '551 mentions its fibre degradation rate range in a separate paragraph subsequent to its discussion of non-uniform fiber cross-section and fiber diameter. It is unknown whether the "fiber diameter" of German '551 refers to minimum fiber diameter, maximum fiber diameter or average fiber diameter. The German '551 fiber may have a longer actual dissolution time than one calculated using the assumption of a circular fiber cross-section, if the minimum values mentioned in German '551 refer to the minimum diameters of non-circular cross-section fibers.

7. I have reviewed the Jokinen Declaration, and affirm all of my statements therein, including those of Paragraph No. 13 as supplemented above.

8. All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that further these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false

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statements may jeopardize the validity of the application or any patent resulting therefrom.

By: 

Mika Jokinen

Signed this 24th day of October, 2007.

Exhibit 1:

Declaration Under 37 C.F.R. § 1.132